

What is claimed is:

1. A communication apparatus comprising:

an antenna for transmitting and/or receiving a wireless signal,

5 an input and output means for receiving as input a signal from a user apparatus and/or outputting a signal to the user apparatus,

10 a signal processing circuit for generating a wireless signal corresponding to the signal input by the input and/or output means and transmitting the wireless signal through the antenna and generating a signal corresponding to the wireless signal received by the antenna and outputting the signal through the input and/or output means,

15 a conductive case for surrounding and housing all or part of the signal processing circuit, an electric wave absorber with one surface in contact with a predetermined area of the conductive case for absorbing an electric wave, and

20 a conductive layer formed on another surface of the electric wave absorber and electrically connected to the conductive case.

2. A communication apparatus as set forth in claim 1, wherein said electric wave absorber and said
25 conductive layer are arranged between said conductive

case and said input and/or output means for input and/or output of the signal with the user apparatus.

3. A portable telephone comprising:

an antenna for transmitting and/or receiving a
5 wireless signal;

a microphone for generating a sound signal
corresponding to an input sound;

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a transmitting and receiving circuit for
generating a wireless signal corresponding to said sound
10 signal generated by said microphone and transmitting said
wireless signal through said antenna and generating a
sound signal corresponding to said wireless signal
received by said antenna;

a receiver for outputting sound corresponding
15 to said sound signal generated by said transmitting and
receiving circuit;

a shield case for surrounding and housing all
or part of said transmitting and receiving circuit and
being conductive;

20 an electric wave absorber with one surface in
contact with a predetermined area of the shield case for
absorbing an electric wave; and

a conductive layer formed on another surface of
the electric wave absorber and electrically connected to
25 the shield case.

4. A portable telephone as set forth in claim 3,
wherein

said transmitting and receiving circuit
comprises:

5 a transmitting circuit for generating a
wireless signal corresponding the sound signal from the
microphone and transmitting the wireless signal through
the antenna,

10 a receiving circuit for generating a sound
signal in response to the wireless signal received by the
antenna and outputting the sound signal to the receiver,
and

15 a printed circuit board mounting the
transmitting circuit and the receiving circuit, and
the shield case surrounds and houses all or
part of the transmitting and receiving circuit to prevent
electromagnetic interference between the transmitting and
receiving circuit and the antenna.

20 5. A portable telephone as set forth in claim 3,
wherein said electric wave absorber is arranged at an
area at the surface of said shield case close to the
human head at the time of a call.

25 6. A portable telephone as set forth in claim 3,
wherein said electric wave absorber is closely bonded to
that area of said shield case.

7. A portable telephone as set forth in claim 3,
wherein said conductive layer includes a metal film
formed on said other face of said electric wave absorber.

8. A portable telephone as set forth in claim 3,
5 wherein said conductive layer and said shield case are
connected by metal wiring.

9. A portable telephone as set forth in claim 3,
wherein

the conductive layer comprises a metal plate
10 fixed to the shield case at a predetermined interval from
and in parallel to the surface of the shield case and

the electric wave absorber is formed by
inserting a predetermined member between the surface of
the shield case and the metal plate.

15 10. A portable telephone as set forth in claim 3,
wherein said electric wave absorber includes a magnetic
loss material.

11. A portable telephone as set forth in claim 10,
wherein said electric wave absorber is a part shaped from
20 a mixture of said magnetic loss material and a synthetic
resin.

12. A portable telephone as set forth in claim 4,
further comprising

a switching circuit mounted among the
25 transmitting circuit, the receiving circuit, and the

antenna on the printed circuit board for supplying the wireless signal from the transmitting circuit to the antenna and supplying the wireless signal from the antenna to the receiving circuit and

5 a feeder for connecting the switching circuit and the antenna, and

the electric wave absorber is closely bonded to a portion at the area of the shield case located between the feeder and the receiver.

10 13. A portable telephone as set forth in claim 3, wherein

said shield case has a case made of an insulating material and a conductive layer formed on the surface of said case and

15 said conductive layer is connected to a layer of a ground level voltage of said printed circuit board.

14. A portable telephone as set forth in claim 3, wherein said shield case is made of a conductive material and is connected to a layer of a ground level voltage of said printed circuit board.

20 15. A portable telephone as set forth in claim 3, further comprising a housing made of an insulating material for housing said transmitting and receiving circuit, said shield case, said electric wave absorber, said microphone, and said receiver, wherein

said receiver is arranged in the vicinity of one end of said housing,

said microphone is arranged in the vicinity of another end of said housing, and

5 said antenna is a retractable antenna able to extend from said one end in the longitudinal direction of said housing.

16. A portable telephone as set forth in claim 15, further comprising

10 a switching circuit mounted among said transmitting circuit, said receiving circuit, and said antenna and on said printed circuit board for supplying said wireless signal from said transmitting circuit to said antenna and supplying said wireless signal from said
15 antenna to said receiving circuit and

 a feeder for connecting said switching circuit and said antenna, wherein

 said electric wave absorber is closely bonded at the portion at said area of said shield case located
20 between said receiver formed on said housing and said feeder.

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